EG&G ER Department Rocky Flats Plant

ER DEPARTMENT DATA ASSESSMENT SUMMARY REPORT FORM

C012136) Laboratory JT - Cerritos No. of Samples/Matrix _16/Water SOW #10/86 (Rev. 2/88) Reviewer Org. QuantaLex. Inc. Sample NumbersGW00706[T, GW00774]T, GW00778]T, GW00789]T, SW00612WC. SW00626WC, SW00627WC, SW00628WC, SW00645WC, SW00646WC, SW00648WC, SW00655WC. SW80074WC, SW80075WC, SW80076WC Data Assessment Summary	Batc	th No. <u>9012C045 (C012133</u>		•
SOW #10/86 (Rev, 2/88) Reviewer OrgQuantaLex. Inc. Sample Numbers _GW00706IT. GW00774IT. GW00778IT. GW00789IT. SW00612WC. SW00626WC. SW00627WC. SW00628WC. SW00645WC. SW0				
Sample Numbers _GW00706IT, GW00774IT, GW00778IT, GW00789IT, SW00612WC. SW00626WC, SW00627WC, SW00628WC, SW00628WC, SW00646WC, SW00648WC, SW00645WC. SW00646WC, SW00648WC, SW00655WC. SW80074WC, SW80075WC, SW80076WC Data Assessment Summary				•
Data Assessment Summary VOA Comments 1. Holding Times A Action Item. 1. 2. GC/MS Tune/Instr. Perf. V 3. Calibrations X Comment 1 4. Blanks A Action Item 2 5. Surrogates V 6. Matrix Spike/Dup. V 7. Other QC A Action Items 3.4; Comment 2 8. Internal Standards V 9. Compound Identification V 10. System Performance V 11. Overall Assessment A Data acceptable with qualifications. V = Data had no problems. A = Data acceptable but qualified due to problems. R = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.				
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Data Assessment Summary VOA Comments 1. Holding Times A Action Item. 1 2. GC/MS Tune/Instr. Perf. V 3. Calibrations X Comment 1 4. Blanks A Action Item 2 5. Surrogates V 6. Matrix Spike/Dup. V 7. Other QC A Action Items 3.4: Comment 2 8. Internal Standards V 9. Compound Identification V 10. System Performance V 11. Overall Assessment A Data acceptable with qualifications. V = Data had no problems. A = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.	SW	80074WC, SW80075WC, SV	W80076WC	00043 W.C. SW 00040 W.C. SW 00048 W.C. SW 00033 W.C.
1. Holding Times A Action Item. 1 2. GC/MS Tune/Instr. Perf. V 3. Calibrations X Comment 1 4. Blanks A Action Item 2 5. Surrogates V 6. Matrix Spike/Dup. V 7. Other QC A Action Items 3.4; Comment 2 8. Internal Standards V 9. Compound Identification V 10. System Performance V 11. Overall Assessment A Data acceptable with qualifications. V = Data had no problems. A = Data acceptable but qualified due to problems. R = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.				sessment Summary
2. GC/MS Tune/Instr. Perf. V 3. Calibrations X Comment 1 4. Blanks A Action Item 2 5. Surrogates V 6. Matrix Spike/Dup. V 7. Other QC A Action Items 3.4; Comment 2 8. Internal Standards V 9. Compound Identification V 10. System Performance V 11. Overall Assessment A Data acceptable with qualifications. V = Data had no problems. A = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.			VOA	Comments
3. Calibrations X Comment 1 4. Blanks A Action Item 2 5. Surrogates V 6. Matrix Spike/Dup. V 7. Other QC A Action Items 3.4: Comment 2 8. Internal Standards V 9. Compound Identification V 10. System Performance V 11. Overall Assessment A Data acceptable with qualifications. V = Data had no problems. A = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable. qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.	1.	Holding Times	A	Action Item, 1
4. Blanks A Action Item 2 5. Surrogates V 6. Matrix Spike/Dup. V 7. Other QC A Action Items 3.4: Comment 2 8. Internal Standards V 9. Compound Identification V 10. System Performance V 11. Overall Assessment A Data acceptable with qualifications. V = Data had no problems. A = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.	2.	GC/MS Tune/Instr. Perf.	V	
5. Surrogates V 6. Matrix Spike/Dup. V 7. Other QC A Action Items 3.4: Comment 2 8. Internal Standards V 9. Compound Identification V 10. System Performance V 11. Overall Assessment A Data acceptable with qualifications. V = Data had no problems. A = Data acceptable but qualified due to problems. R = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable. qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.	3.	Calibrations	X	Comment 1
6. Matrix Spike/Dup. V 7. Other QC A Action Items 3.4: Comment 2 8. Internal Standards V 9. Compound Identification V 10. System Performance V 11. Overall Assessment A Data acceptable with qualifications. V = Data had no problems. A = Data acceptable but qualified due to problems. R = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.	4.	Blanks	A	Action Item 2
7. Other QC A Action Items 3.4: Comment 2 8. Internal Standards V 9. Compound Identification V 10. System Performance V 11. Overall Assessment A Data acceptable with qualifications. V = Data had no problems. A = Data acceptable but qualified due to problems. R = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.	5.	Surrogates	<u> </u>	
8. Internal Standards V 9. Compound Identification V 10. System Performance V 11. Overall Assessment A Data acceptable with qualifications, V = Data had no problems. A = Data acceptable but qualified due to problems. R = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.	6.	Matrix Spike/Dup.	<u> </u>	
9. Compound Identification V 10. System Performance V 11. Overall Assessment A Data acceptable with qualifications. V = Data had no problems. A = Data acceptable but qualified due to problems. R = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.	7.	Other QC	A	Action Items 3.4; Comment 2
10. System Performance V 11. Overall Assessment A Data acceptable with qualifications. V = Data had no problems. A = Data acceptable but qualified due to problems. R = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.	8.	Internal Standards	<u> </u>	
11. Overall Assessment A Data acceptable with qualifications. V = Data had no problems. A = Data acceptable but qualified due to problems. R = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.	9.	Compound Identification	V	
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A = Data acceptable but qualified due to problems. R = Data rejected. X = Problems, but do not affect data. Data Quality: Data contained in this batch were reviewed and found to be acceptable with qualifications. Acceptable, qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.	11.	Overall Assessment	A	Data acceptable with qualifications.
qualified data may be used provided that individual values impacted by the "Action Items" listed below are appropriately flagged.		A = Data acceptable but qualified due to R = Data rejected.	problems.	
(Refer to attached Data Summary Tables.)	<u>quali</u>	fied data may be used provided the	at individual values i	mpacted by the "Action Items" listed below are appropriately flagged.
	(Refe	er to attached Data Summary Table	es.)	

REVIEWED FOR SLASSIFICATION A-DU04-00081

Action Items: 1) The results for aromatic compounds in samples GW00774IT, SW00648WC, SW80074WC, and SW80075WC are estimated (J) because holding times exceeded seven days. 2) As a result of method blank contamination, the positive results for Methylene Chloride in samples GW00706IT, SW00612WC, SW00626WC, SW00627WC, SW00628WC, SW00645WC, SW00646WC, SW00648WC, SW00655WC, SW80074WC, SW80075WC, and SW80076WC are reported as undetected and estimated (J) according to the Functional Guidelines criteria (10x rule). 3) Calibration was not performed for the cis isomer of 1,2-Dichloroethene. Since a relative response factor (RRF) was not generated and the retention time (RT) was not verifiable, the exact concentration could not be determined and the positive result for this compound in samples SW00648WC and SW80075WC are estimated (J). 4) The cis isomer of 1,2-Dichloroethene was also found in sample SW00646WC. However the compound was quantitated as a TIC (i.e. ratio of peak height with the nearest internal standard and the response factor for 1,2-Dichloroethene (total) was not used). Therefore the exact value is in question and the result is estimated (J). (Resubmittal was requested, however the data were not provided. Comments: 1) Compounds with %Ds exceeding 25% in the continuing calibrations were undetected in the associated samples. Thus no action is taken. 2) The sample numbers SW90237WC, SW90238WC, SW90236WC, and SW90228WC were listed on the chain-of-custody records for VOA analysis. However these samples were not included with this batch. Note: Data Summary Tables are attached. $\frac{6/3/9}{\text{Date}}$ Validator Signature

Validator Signature

T. Fea

NS.	SAMPLE				KON VS	SAMPLE		94.				-							
PROJECT	NOLLECTION			85		AMALYSIS	BLANK	9 151			, no	1				i 			
	DATE THE	BATCH	SAMP	SAMPLE	-	DATE TIME			RS CAS	ANALYTI	OUA 2 SIG		NO.	•	DETECTION REASONS	RFASONS	ē	<u> </u>	3 8
		MUMBER	X X	NUMBER	TO MEMODO.	MANDON MANDON HAY	NUMBER	CODE	ID NUMBER	RESULT	IRE ERROR	DR MEASU	TIME	PARAMETER NAME	V TMU	1 2 3	T HESSELT	ī	9 0
	12/06/90 1310	C012035	WATER	C01203501A	шс	12/12/90	C012134VBLK2	VOCCLPTC, TR 71-55-6	R 71-55-6	S U	_	UG/L	L	1,1,1-TRICHLOROETHANE	>				i
	12/06/90 1310 C012035	C012035	WATER	C01203501A	шc	12/12/90	C012134VBLK2	VOCCLETIC TR 79-34-5	R 79-34-5	3 0	_	UG/L	L	1.1.22 TETRACHLOROFTHANE	2		+		T
	12/06/90 1310 C012/035	C012035	WATER	C01203501A	шс	12/12/90	CO12134VBLK2	VOCCLPTCL TR 79-00-5	R 79-00-5	5 0		UG/L	L	1,1,2-TRICHLOROETHANE	\ \ \				T
	12/06/90 1310 C012/035	2012035	WATER	C01203501A	mс	12/12/90	CO12134VBLK2	VOCCLPTC. TR 75-34-3	R 75-34-3	5 U	L	NGA	L	1.1-DICHLOROETHANE	>	T	+	1	T
	12/06/90 1310 C012/03	2012035	WATER	COIZCOSOIA	шс	12/12/90	C012134VBLX2	VOCCLPTC, TR 75-35-4	2 75-35-4	5 0	L	UGI	L	1 1-Dight ORORTHRNH	, ,	+	+	1	T
	12/06/90 1310 C012035	2012035	WATER	C01203501A		12/12/90	CO12134VBLK2	VOCCLPTCL TR 107-06-2	107-06-2			UGA		1 2 DICH OROGINANG	, ,	+	-		T
	12/06/90 1310 C01203S	2012035	WATER	C01203501A	JI.	12/12/90	CO12134VBLK2	VOCCIPICI, TR 540-59-0	\$40-59-0		+	101	ŀ	1 2-DICH OROGINISM CTCATA		+	-		T
	12/06/90 1310 C012035		MATTER	C01203501A	шc	12/12/90	C012134VBLK2	VOCCLPTCI, TR 78-87-5	3 78-87-5			1 IGA		1 2.DiChi Deobeobean		1	-		T
	12/06/90 1310 C012035	201,2035	WATER	C01203501A	TLC.	12/12/90	COL2134VBLK2	VOCAPICA, TR 78-93-3	2 78-93-3		-	1364		2. RITTANONE		+	-		T
	12/06/90 1310 C012035	2012035	WATER	C01203501A	шc	12/12/50	C012134VBLK2	VOCCLPTC, TR 591-78-6	591-78-6	Ī	-	1134	1	2 HIVA ANOME		1	1	1	T
	12/06/90 1310 C012035	2012035	WATER	C01203501A	II.C	12/12/90	CO12134VBLK2	VOCCUTCL TR 108-10-	108-10-1			1 IGA		SONTANDAM		+			T
	12/06/90 1310 C012035		WATER	C01203501A	ЭШ	12/12/90	C012134VBLK2	VOCT PICT TR 67-64	1-10-10		-	101	1			1	-		T
SW00655WC 12/06/	12/06/90 1310 C01203		WATIR	C01203501A	шс	12/12/90	COL2134VBLK2	VIXXT PITT TIP 71.43.2	71.43.2		1	100	1			1	+		1
	12/06/90 1310 C012035		WATER			12/12/90	CO12134VBLK2	VOCTOTION TR 75.27.	75.27.4	2 =	+	1/00/1	1	1	>	1	-		
SW00655WC 1206	12/06/90 1310 C012035		τ			12/12/90	Chigadalita	13.57 VI 20.5000	26.06.0	2 :	+	CON	1	BKOMODICH OKOMI TI IANE	S v				
SW00655WC 1206	12/06/90 1310 C012/035		T			000000	Contraction and		T		+	DCA		ВКОМОРОКІМ	٥ ,				
T	12/06/80 1310 (2012/036		7			41450	COL2134VBLK2	VOCCLITIC. TR 74-83-9	1	10	-	UG/L		BROMOMETHANE	JO v				
	OIC S	T	7			12/12/90	C012134VBLK2	VOCCLPTCL TR 75-15-0	175-15-0	s U		UG/L		CARBON DISULFIDE	2 ~				Τ
	1200/90 1310 Cut 203		T			12/12/90	C012134VBL.K2	VOCAPICA TR 56-23-5		s u	L	UGAL	L	CARBON TETRACHLORIDE	> <	 -			T
	12/06/90 1310 C012035					12/12/90	C012134VBLK2	VOCCLPTCL TR 108-90-7		S U	-	UG/L		CHLOROBENZENE	2	+	+	+	Τ
	12/06/90 1310 C012/035		WATER		шc	12/12/90	CO12134VBLK2	VOCCLPTCL TR 75-00-3	Γ	10 01		UG/L	L			1	+	1	T
	12/06/90 1310 0012035		WATER	,	пс	12/12/90	C012134VBLK2	VOCCIPICI, TR 67-66-3	67-66-3	-		UGAL				1	1	1	T
	12/06/90 1310 C012035		\neg		m.c 1	12/12/90	CO12134VBLK2	VOCCLPTC TR 74-87-3	Γ	D 01	L	UGAL		ANE	2	+		1	T
	12/06/90 1310 C012035					12/12/90	C012134VBLK2	VOCCLPTC, TR 10061-01-5	10061-01-5	2		UG/L		ROPENE		-	-		
	12/06/90 1310 C012035					12/12/90	C012134VBLK2	VOCCIPICE TR 124 48-1		S	L	UG/L		1			-		Τ
1	12/06/90 1310 C012035		7			12/12/50	COI 21 34 VBLK2	VOCCLPTCL TR 100-41-4		S U		UG/L		Τ	^ >		-	1	Τ
1	12/06/90 1310 C012035					12/12/90	C012134VBLK2	VOCCLPTC. TR 75-09-2		2 BU		UG/L		METHYLENE CHLORIDE 5		8	5	110.4	Τ
1	12/06/90 1310 C012035		7			12/12/90	C012134VBLK2	VOCCLITIC. TR 100-42-5		2		UG/L						Т	Τ
	1206/90 1310 C012035		_			12/12/90	C012134VBLK2	WOCCEPICE, TR 127-18-4	127-18-4	2		UQ.L		TETRACHLOROETHENE	>	+	-		Τ
1	12/06/90 1310 C012035					12/12/90	C012134VBLK2	VOCCLPICE, TR 108-88-3	108-88-3	D	_	UGAL	L	TOLUENE	>	+		+	Т
	12/06/90 1310 C012035		_ 1			12/12/90	C012134VBLK2	VOCCEPTCE, TR 10061-02-6	10061-02-6	2	L	UGAL		TRANS-13-DIGHLOROPROPENES		#	1	+	Τ
	12/06/90 1310 C012035		WATER			12/12/90	C012134VBLK2	VOCALPICA TR 79-01-6	Г	2	L	UGAL		TRICHLOROGITHENE		1		+	Ţ
	12/06/90 1310 C012035						C012134VBLK2	VOCCLITYCE, TR. 108-05-4	_	10 U	-	UGAL			2 01	+	1	+	Т
	12/06/90 1310 C012/035		WATER				C012134VBLK2	VOCCLPTC TR 75-01-4	Г	10	L	UGA.				+	1	\dagger	Τ
SW00655WC 12/06/9	12/06/90 1310 C012035		WATER	C01203501A	TLC 1:	12/12/90	C012134VBLK2	VOCCLETIC TR 1330-20-7	1330-20-7	2	-	UG/L				+		\dagger	Т

RADIATION SCREEN z \ ≻ 83226, 228 ۵ Sr89/90, Cs137, 4002-410 0 0233/234, 235, 528 Z PU239/240, AM241 Σ **BVA 22090** DOC IF FILTERED **TOC** TEMPERATURE WITHIN SPECIFICATION HSS OTHER PROBLEMS OR DISCREPANCIES PCKG REC'D/CUSTODY SEALS INTACT soud-o PROJECT NO2\NO5'₩H& Tot Phos, SAMPLE LABELS/COCS AGREE CORRECTED COPY ATTACHED TDS, CI, F, SO4, CO3, HCO3, SI,NO2 LABORATORY USE ONLY PRESERVED WITH C6H806 METALS, Cs, LI, Sr, Sn, Mo ш OIL AND GREASE TRIAZINES PEST/PCB-CLP œ ь́ве́́́ VOA-CLP EDB. MIW COIZIBS Na2S203 **PRESERVATIVE** H2S04 8 DATE/TIME НИОЗ HOAN ئ چ ZU(CSH2OS)S COOLED TO 4 C X OUT OF SPEC REPORTS REQUIRED SHIPMENT METHOD FED A= HSUR GNUORA NRUT d=SSIQ 10d FILTERED=F MEDIA SOIL(S) WATER (W) ≥ 3 ₹ ≥ NUMBER OF CONTAINERS 500 ML POLY Bruce LaRue (303) 986-5874 CONTAINER MALPOLY RECE/VED BY 40 MIL AG 1 L POLY 11 POLY 40 ML YL 1 L POLY 11 POLY 1LAG SAMPLERS. TYPE ITCORP - OAKRIDGE, TENNESSEE 2-0-C NUMBER 1/16-ITA196 (3075) B LOCATION SWBS SWØ95 Ex 3/186-2-2 EG&G ROCKY FLATS PLANT DATE/TIME WOODWARD-CLYDE FEDERAL SERVICES CHAIN OF CUSTODY SN DOG 55WC SWADE SS WC SAMPLE NUMBER SITE CONTACT/PHONE JANOUISHED BY 12/8 LAB/LOCATION. 35 313 1317 CONTRACTOR DATE/TIME REMARKS 06800

EM DEPARTMENT DATA ASSESSMENT SUMMARY REPORT FORM

File	No. <u>9012T650</u>			Site Surface Water Monitoring
Lab	oratory Teledyne Isotopes			No. of Samples/Matrix 20/Water
	No. <u>R00377</u>			Reviewer Org. QuantaLex. Inc.
Sam	ple Numbers <u>\$W00571W(</u>	C. SW00604WC. S	2W00605WC.	8W00607WC, SW00578WC. 00636WC, SW00638WC, SW00645WC.
SW	<u>00646WC.\&W00653WC.\&Y</u>	V00654WC.28W86	0076WC,18W	80077WC,&W00655WC,&W00573WC,
<u> SW</u>	00626WC			
		Data Asse	essment Sumr	nary
by G	Gross α + β Analysis as Proportional Counters	Alpha	Beta	Comments
1.	Holding Times	V	V	
2.	Initial Calibrations		<u>v</u>	
3.	Continuing Calibrations	<u> </u>	<u>V</u>	
4.	Laboratory Blanks	<u> </u>	V	
5.	Lab Replicates	X	X	See Action Item 1
6.	Lab Control Samples	<u>V</u>	Y	See Comment 1
7.	Size of Aliquot			See Comment 2
8.	Self-Absorption Factors	<u>V</u>		
9.	Sample Calculations	<u>Y</u>	<u>V</u>	See Comment 3
10.	Overall Assessment	<u>V</u>	v	See Comment 4
	V = Data had no problems. A = Data acceptable but qualified due to	problems.		

Data Quality: Data contained in this batch were reviewed and found to be valid. (Refer to attached Data Summary Tables).

R = Data rejected.

X = Problems, but do not affect data.

Action Items: 1) Lab Replicates	s: No lab rediicates were ana	iyzed with this Sample	Delivery Group (2DG).
however this did not affect the over	rall quality of the data: thus th	ne recults were floored	¥
nowever and that arrest the over	tan granty or pro tatal, pros p	IC TOSGIO WOTO TIMBROG	121
Comments: 1) Lab Control Sam	ples (LCSs): The relative pe	rcent error for the Gros	s alpha LCS was 18.7%.
The relative percent error for the G	mss heta LCS was 7.2%		
			2 62100636210
2) Minimum Detectable Activi			
SW00654WC, SW80077WC, and	SW00655WC exceeded the R	Required Detection Lim	its (RDLs) for the Gross
alpha and Gross beta analyses due	to heavy dissolved solids in the	he sample matrices.	<u> </u>
3) Sample Calculations: The l	aboratory reported estimated	values on the Data Sun	nmary Report Table for
those samples with activities less the	han the MDA. The reviewer	reported the laboratory'	s actual values in the
QLI Result column of the Data Sur	mmary Report Table.		
4) Overall Assessment: The la	aboratory did not report the M	DAs for the Gross alph	a and Gross beta
analyses. The reviewer calculated	ule MIDAS as follows:		
Sample ID	Gross alpha MDA (pCi/L)	Gross beta MDA (pCi/L)	
SW80075WC	2.15	2.57	
SW00612WC	2.08	2.54	
		2,40	
SW00571WC	1.58		
SW00604WC	1.84	2.47	
SW00605WC	1.84	2.47	
SW00607WC	1.78	2.46	
SW00578WC	4.32	5.10	
SW00648WC	2.15	2.57	
SW80 074WC	1.18	2.31	
SW00636WC	1.83	2.47	
SW00638WC	4.32	5.09	
SW00645WC	2.18	2.58	
SW00646WC	2.16	2.57	
SW00653WC	2.25	2.60	
SW00654WC	9.98	12.49	
SW80076WC	1.19	2.31	
SW80077WC	8.46	9.69	
SW00655WC	13.76	15.55	
SW00573WC	1.72	2.44	
SW00626WC	2.03	2.54	
22118 LCS	1.86	2.45	
22110 LCS 22120 BLK	1.41	2.33	
Note: Data Summary Tables are	e attached.		1 101
- NIKK WI	20V		7/17/41
Validator Signature			Date
Pil ITA	usma		7/18/91
Pariama Signatura			Date
Reviewer Signature			Date

Radiochemical Data Completeness Checklist for Radiometric and Gross α & β Analyses of Soil and Water by Gas Proportional Counters

A.	Yes Case Narrative
	Yes Abnormalities explained
	Yes Matrix Problems explained
	Yes Instrument problems explained
	Yes Improper collection, storage, preservation, container explained
	Yes Hold times met, explained if not met
В.	YesInitial and Continuing Calibration Data Package
	Yes Detector ID
	Yes Date and Time calibrated, calibration check, Analyst initials
	Yes Radionuclide Standard Name, NIST certification and expiration
	dates, and DPM value
	Yes Aliquots of standards used
	Yes Raw tapes from counters showing alpha and beta counts obtained and count durations for each weight of salt
	Yes Weights of salts
	Yes Efficiencies
	Yes Best fit curve coefficients
	Yes Reliability check source name, NIST certification,
	expiration and DPM activity
	Yes Raw tapes from counters showing alpha and beta counts
	obtained and count durations for reliability checksource
	N/A Efficiency checksource name, NIST certification, expiration,
	and DPM activity
	N/A Raw tapes from counters showing alpha and beta counts
	obtained and count duration for checksource
	Yes Efficiency obtained for checksource
	Yes Results of lab statistical test used to evaluate reliability
	and efficiency checks
	Yes Background counts obtained and count duration for each detector
	Yes Results of lab statistical test used to evaluate the instrument
	background
C.	Yes Reagent Blanks Data Package
	Yes ID of each detector used
	Yes Analyst initials
	Yes Date reagent blanks were analyzed
	Yes ID of samples analyzed with the reagent blanks
	No Type of method blank used, MDA of method
	Yes Volume of aliquot for reagent blanks
D.	NoReplicate Sample Data Package
	No ID of each detector used
	No Analyst Initials
	No Date sample and replicates were analyzed
	No Sample IDs, values obtained for sample and replicates
	No Count Duration of sample and replicates
	No Volume of aliquot for sample and replicates
	No Calculated uncertainties and MDAs
_	
E.	Yes Lab Control Samples (LCSs) Data Package

Yes ID of each detector used Yes Analyst initials Yes Date LCSs were analyzed Yes ID of LCS No Values obtained for LCSs with uncertainty and MDA Yes True value of LCSs with uncertainty Yes ID of samples analyzed with the LCSs
YesMinimum Detectable Activity
Yes Background measurements including: counts and count durations of samples and backgrounds taken during the same weekly time period
Yes Date of analysis
Yes Background CPM No MDA calculated for both gross alpha and gross beta
analysis of the sample
Yes Size of Aliquot in Gross α & β Determination Data Package Yes Sample ID
Yes Calculated volume of sample to deliver 150mgs solids
Yes Raw data supporting efficiency factor and efficiency factor used
YesSample Data Package
Yes Printed report of results for sample, reruns Yes Raw Data from counter, copies of notebook pages
Yes Manual/Computer calculations
No Sample ID, Detector ID, obtained sample and background
counts and count durations observed, aliquot of sample, weight of solids counted, detector efficiency, activities,
uncertainties, and MDAs

GR-B Luff T V GR-B 2 GR-B 4 GR-B 4 <th>08</th> <th></th> <th></th> <th>CAS NUMBER 1287-46-1 1288-47-2 1288-47-2 1288-47-2 1288-46-1 1288-</th> <th></th> <th>SAJBPLE PANIEL NUMBBER CODE 22120 DRADS 2212</th> <th>SAJBPLE PANIEL NUMBBER CODE 22120 DA.038 22120 DA.038 22120 DB.038 22120 DB.0408 22120 DB</th> <th>SAMPLE PANIEL NUMBER CODE 2120 DRADS 2120 DRADS</th> <th> DATE DATE THE SAMPLE PANEL PANEL </th>	08			CAS NUMBER 1287-46-1 1288-47-2 1288-47-2 1288-47-2 1288-46-1 1288-		SAJBPLE PANIEL NUMBBER CODE 22120 DRADS 2212	SAJBPLE PANIEL NUMBBER CODE 22120 DA.038 22120 DA.038 22120 DB.038 22120 DB.0408 22120 DB	SAMPLE PANIEL NUMBER CODE 2120 DRADS	DATE DATE THE SAMPLE PANEL
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REPORT OF ANALYSIS

RUN DATE 03/27/91

PAGE

DELIVERY DATE

DATE RECEIVED

CUSTOMER P.O. NUMBER DS-1072 RFEV19

MORK ORDER NUMBER

REASCO SERVICES INCORPORATED

143 UNION BOULEVARD

SUITE 1010

LAKEWOOD CO

80228-1824

WATER - SURFACE

		MAIEK - SURFACE					
STA STA NUM DATE	COLLECTION-DATE START STOP DATE TIME DATE T	E OP TIME NUCLIDE	ACTIVITY NI (PCI/LITER)	NUCL-UNIT-X U/M o	MID-COUNT TIME DATE TIME	VOLUME - UNITS ASH-WGHT-X &	LAB.
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		GR-8	1.1 +-0.1 E 02		01/14		3 HIGH
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		PU-239	ш		02/07		6 SPEC

RADIATION SCREEN ΣН G G R3226, 228 ۵ 2r89/90, Cs137, 0 0222/224, 235, 238 C C 4002-410 Z PU239/240, AM241 N Σ B/A S2090 DOC IF FILTERED <u> 10C</u> TEMPERATURE WITHIN SPECIFICATION HSS OTHER PROBLEMS OR DISCREPANCIES PCKG REC'D/CUSTODY SEALS INTACT soud-o PROJECT NO3/NO2, NH4 Tot Phos, SAMPLE LABELS/COCS AGREE 155, TDS, CI, F, 504, CO3, HCO3, SI,NO2 I CORRECTED COPY ATTACHED LABORATORY USE ONLY 0 PRESERVED WITH C6H806 METALS, Cs, LI, Sr, Sn, Mo OIF AND GREASE ۵ TRIAZINES PEST/PCB-CLP B BNA-CLP < PRESERVED WITH HCL NOY-CID Na2S203 PRESERVATIVE **H**S204 0011 HNO2 DATE/TIME HOAN ZU(CSH20S)S COOLED TO 4 C Y/N Δ OUT OF SPEC REPORTS REQUIRED FED A= HSUA GNUOAA MAUT d=SSIQ TOd FILTERED=F MEDIA SOIL(S) WATER (W) SHIPMENT METHOD NUMBER OF CONTAINERS CONTAINER OALBY RECEIVED BY Bruce LaRue (303) 968–5874 CAL PRY TOO MIL AG GAL POLY TOD MIL. AG GAL POLY GAL POLY TOD ME. AG SOMA PS SAMPLERS_ TYPE 100ml LAB/LOCATION TELEDYNE - WESTWOOD, N.J. LOCATION 5W694 S SNOBB SWØ9 EG&G ROCKY FLATS PLANT -0-C NUMBER MC -TOESE DATE/TIME WOODWARD-CLYDE CONTRACTOR FEDERAL SERVICES CHAIN OF CUSTODY SMBB655WC SAMPLE NUMBER SWEGGESSWC SWBBD77 WC SW66654WC SW 8000 76 W SITE CONTACT/PHONE ద REKTINGUISHED 240 प्टक 1325 DATE/TIME REMARKS